

### Remarks/ Arguments

In response to the Office Action mailed November 17, 2004 Applicants respectfully request that the Examiner reconsider the rejections of the claims.

Claims 6 – 8, 11 – 17, and 21 - 26 remain.

Claims 6 is being amended.

Claims 6 – 8, and 11 – 17 stand rejected under the judicially created doctrine of obviousness-type double patenting in view of the parent, United States Patent No. 6,741,123 to *Anderson et al.* Applicants provide herewith a terminal disclaimer obviating the double patenting rejections.

Claims 6 – 8, and 11 – 18 stand rejected under 35 U.S.C. § 102(e) as being anticipated by *Melanson*. (U.S. Patent 6,344,811) (hereinafter "the *Melanson* reference"). Applicants respectfully traverse these rejections.

Anticipation rejections under 35 U.S.C. § 102(e) require identity of invention. In other words, each and every feature of each and every claim rejected as anticipated in a single prior art reference.

With respects to amended Claims 6 – 8, and 11 – 18, the *Melanson* reference does not teach the features of generating an analog sum and difference, converting the sum and difference to analog form, and providing the digital sum and difference to a noise shaper. Instead, in the system disclosed in the *Melanson* reference, the voltage rails are directly monitored by analog to digital converters (ADCs) 120 and 121, and the resulting digital signals are then fed to function blocks f1 and f2.

New Claims 21 – 23 subject matter along the lines of Claims 6 and 7, prior to amendment. The *Melanson* reference does not disclose measuring the sum and difference of first and second voltages, subtracting an average value of the first and

second voltages from an output of the noise shaper loop filter, dividing the result of the subtraction by the measured difference, and then providing the result of the division to the input of the quantizer. Specifically, the *Melanson* reference only discloses a function block f1, which generally takes the unmodified digital representations of the first and second supply voltages directly from ADCs 120 and 121, calculates the difference between the loop filter output and the first supply voltage, divides that difference by the difference between the first and second supply voltages, and then passes the result to the input of the quantizer. (See, for example, the *Melanson* reference, Col. 4, Lines 1 – 15).

New Claims 24 – 26 include the subject matter of Claim 6 and 8, prior to amendment. The *Melanson* reference does not teach measuring the sum and difference of first and second voltages, multiplying an output of the quantizer by the measured difference, adding a result of the multiplication to an average of the first and second voltages, and then feeding-back a result of the addition to an input of the noise shaper. The *Melanson* reference only teaches a system in which the difference between unmodified first and second supply voltages is taken from the outputs of ADCs 120 and 121, the difference is divided by two (2) to produce an average, and the scaled average passed to the input of the modulator. (See, for example, the *Melanson* reference, Col. 3, Line 58 – Col. 4, Line 7).

Given the substantial differences between Claims 6 – 8, 11 – 18, and 21 - 26, and the teachings of the *Melanson* reference, and Claims 6 – 8, 11 – 18, and 21 – 26 should be in condition for allowance.

No new matter has been added; the claims have been merely amended to more particularly claim the subject matter Applicants believe is inventive. Applicants respectfully submit that the Claims as they now stand are patentably distinct over the art cited during the prosecution thereof.


Applicant respectfully requests a Two Month Extension of Time to File this Response. Enclosed with this paper is Form PTO/SB/22 with Extension Fees in the amount of 450.00.

With the addition of no new claims, no additional filing fees are due. However, the Commissioner is hereby authorized to charge any fees or credit any overpayment to Deposit Account Number 20-0821 of Thompson & Knight LLP.

If the Examiner has any questions or comments concerning this paper or the present application in general, the Examiner is invited to call the undersigned at (214) 969 - 1749.

Respectfully submitted,

Thompson & Knight LLP  
Attorneys for Applicant

By:   
James J. Murphy  
Reg. No. 34,503

1700 Pacific Avenue  
Suite 3300  
Dallas Texas 75201 - 4693  
Date: April 18, 2005